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ABSTRACT

Focusing on the effects that color photography has had on the content of photographs published in daily newspapers in the United States, a study conducted interviews with both photographers and photo editors and also carried out a content analysis comparison of photographs published before and after the use of color at a small daily, "The Herald-Telephone" of Bloomington, Indiana. The content analysis was conducted for six weeks in 1988. Four aspects of photographs were analyzed: (1) whether a photo was taken indoors, outdoors at night, or outdoors during the day; (2) whether a photo accompanied a front page story, a story on another page, or was a stand-alone photograph; (3) whether a photo was staff or wire; and (4) the picture's category (spot news, general news, feature, portrait/personality, sports action, sports feature, or head shot combo). Findings indicated that more front-page photos were taken outdoors after color use than before; fewer news photos and more feature photos appeared on newspaper front pages after a newspaper switched from black-and-white to color photographs; and fewer front-page photographs accompanied stories after color use than before. (Thirty-three notes are included, and four tables of data are attached.) (MM)

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How the Use of Color Affects the Content of Newspaper Photographs

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Introduction

Ten to fifteen years ago colorful newspapers, such as the **St. Petersburg Times**, were the exception rather than the rule. Today gray newspapers are the exception and new presses and color scanners the rule.

This paper focuses on the effects the switch from black-and-white to color has had on the content of newspaper photographs.

The Context of the Study

In the 1950s such greats as Henry Cartier-Bresson and W. Eugene Smith worked exclusively in black-and-white.[1] Although Kodachrome, an excellent color film, was widely available in the 50s, serious photographers thought color was frivolous -- an advertiser's tool.[2]

But recently, with a better-late-than-never attitude, newspapers across the United States have been making the switch from black-and-white to color in droves. Today black-and-white photographs are becoming the rarity. Numerous newspapers around the country use black-and-white photos only on inside pages.

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[1]Scully, J., "In the 50s - When Black-and-White Photojournalists Were Kings," **Modern Photography**, Oct. 1985, p4.

[2]"Photojournalism's Colorful Era," **New York Times Magazine**, vol 136, March 1, 1987, p. 34.

"There is a real feeling that if (a photograph) is not in color, it might as well not exist," Sandra Elser, San Jose Mercury News senior picture editor, told Editor and Publisher in 1988.[3]

Part of this rush to publish color photographs can be attributed to the rise of the marketing approach in the newspaper industry. Newspapers are being forced by competing media to put information into a form that will make people want to receive it.[4] And one way to package information so that readers will want to receive it is to make it colorful.

Reader preference for color and the use of color as a competitive tool are two related topics that have been studied previously. The other major related area previously studied is the number of papers using color.

Related Studies

1) Reader Preference for Color

Studies indicate that readers like to see color in their paper. Readers rated front pages with four-color halftones significantly higher than pages with black-and-white photos in a study using semantic differential scales

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[3]Mark Fitzgerald, "Pretty as a Picture," Editor and Publisher color pullout, Nov. 5, 1988, p. 16.

[4]Meyer, P., The Newspaper Survival Book: An Editor's Guide to Marketing Research, p.4.

conducted by J.W. Click and Guido H. Stempel III published in 1976.[5]

Ratings for the four-color pages were higher on 19 of 20 scales studied, including pleasant-unpleasant, fair-unfair, modern-old-fashioned and exciting-dull.[6]

A national survey conducted in 1986 for the Newspaper Advertising Bureau showed that 74 percent of U.S. adults wanted to see color in their daily newspaper. That figure was 90 percent for the 18 to 24-year-old segment of the market.[7] A 1988 survey sponsored by the same group found that 49 percent of those surveyed said color in their papers was "very" important or "somewhat" important to them personally.[8]

2) The Use of Color as a Competitive Tool

Several studies have dealt with the use of color as a competitive tool. A content analysis of newspapers published in November of 1984 conducted by Keith Kenney and Stephen Lacy found that as competition increases between papers, the percentage of their front pages devoted to color

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[5]J.W. Click and Guido H. Stempel III, "Reader Response to Front Pages with Four-Color Halftones," **Journalism Quarterly**, Vol. 53 (1976) p. 737.

[6]Ibid, p.738.

[7]T. Anderson, "Readers Think Color is Important," **Editor and Publisher**, Sept. 28, 1987, p. 4c.

[8]Debra Gersh, "Readers Want More Color," **Editor and Publisher**, Sept. 24, 1988, p. 2c.

increases.[9] This finding reinforces findings in a content analysis study conducted by David H. Weaver and L. E. Mullins. Weaver and Mullins analyzed newspapers published in competitive markets during the last six months of 1972 and the first six months of 1973. They found a tendency for "trailing" papers to use more color photographs than "leading" papers.[10]

Also related to the competitive use of color are findings from a 1983 survey of 78 papers conducted by Sandra Utt and Steve Pasternack. They found that 95 percent of the editors surveyed thought a "good looking" paper could be a factor in a competitive environment.[11] And in another study conducted by Utt and Pasternack, this one a content analysis of papers with circulations over 100,000, newspaper "trailers" were found to use more modern graphic devices than leading newspapers. (Included in their list of modern graphic devices were color photographs.)[12]

3) The Number of Papers Using Color

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[9]Keith Kenney and Stephen Lacy, "Economic Forces Behind Newspapers' Increasing Use of Color and Graphics," **Newspaper Research Journal**, Vol. 8, No. 3, Spring 1987, p. 37.

[10]David H. Weaver and L. E. Mullins, "Content and Format Characteristics of Competing Newspapers," **Journalism Quarterly**, Vol. 52 (1975) p. 264.

[11]Sandra Utt and Steve Pasternack, "Front Pages of U. S. Daily Newspapers," **Journalism Quarterly**, Vol. 61 (1984) p. 883.

[12]Sandra Utt and Steve Pasternack, "Use of Graphic Devices in a Competitive Situation: A Case Study of 10 Cities," **Newspaper Research Journal**, Vol. 7, No. 1, Fall 1985, p. 11.

Studies seem to indicate a growing number of papers are using color photographs at least on an occasional basis. In the 1983 survey conducted by Utt and Pasternack mentioned above, 35 percent of the 78 papers responding reported regular use of four-color on their front pages. An additional 28 percent reported occasional use of four-color on page one.[13]

A content analysis of newspapers that were published in November of 1984 conducted by Keith Kenney and Stephen Lacy showed that 32 percent of the 114 papers studied used front-page color regularly and 59 percent used it occasionally.[14]

The surveys of U.S. adult readers sponsored by the Newspaper Advertising Bureau mentioned above also included questions about color use in the papers the 1000 respondents read. The most recent study conducted in June 1988 found 37 percent of daily newspaper readers reported seeing front-page color at least half the time. The percentage of those seeing color at least half time was slightly higher than in 1986 when the percentage was 31 percent.[15] Even though the percent of those who said they saw color at least half the time in 1988 was only slightly higher than in 1986, 54

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[13]Sandra Utt and Steve Pasternack, "Front Pages of U.S. Daily Newspapers," **Journalism Quarterly**, Vol. 61 (1984) p. 883.

[14]Keith Kenney and Stephen Lacy, "Economic Forces Behind Newspapers' Increasing Use of Color and Graphics," **Newspaper Research Journal**, Vol. 8., No.3, Spring 1987, p. 37.

[15]Debra Gersh, **Editor and Publisher**, "Readers Wants More Color," Sept. 24, 1988, p. 2c.

percent said they saw more color in their papers in 1988 than they did "a couple of years ago."[16] This finding is in keeping with the results of a survey conducted the by the National Press Photographers Association in 1986 which found that 47 percent of the photographers questioned worked for papers that had plans to increase the use of color in the next year.[17]

Photojournalists' Concerns About Color

Studies of readers desires, competitive strategies and the growing number of papers using color are important, but newspaper photographers and picture editors are more concerned about the effect the move to color is having on the content of photographs published in newspapers.

There is concern that the traditional "fly-on-the-wall" approach to photojournalism has given way to a posed studio-like approach, and that the increased use of color has been a major influence in moving photojournalism in that direction.[18] Both aesthetic and technological differences between color and black-and-white photography may account for this move.

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[16]Ibid, p. 2c.

[17]**News Photographer**, July 1986, survey p. 6.

[18]Mark Fitzgerald, "Pretty as a Picture," **Editor and Publisher** color pullout, Nov. 5, 1988, p.16.

Some Differences Between Color and Black-and-White

The obvious difference between color and black-and-white photographs is the natural descriptive hues of color photographs versus the abstract tonal range of black-and-white photographs. This is the difference that attracts readers and the reason newspapers are switching from black-and-white to color. The effect of hue is summed up in the "color for color's sake" argument, which basically says that sometimes editors choose color photographs because of color instead of content.

Another difference between color and black-and-white photographs is the sensitivity of the film. Color film is sensitive to different colors of light; black-and-white is not.

In addition, the technology of photographic reproduction is different for black-and-white and color photography. Extra time is needed to make separations when color photographs are reproduced.

Research Question

This paper attempts to determine what effects, if any, the use of color photography has had on the content of photographs published in daily newspapers in the United States. **The research question is: Has the use of color affected the content of newspaper photographs and if so,**

how? This question was explored in interviews with photographers and photo editors[19], and in a content analysis comparison of photographs published before and after the use of color at a small daily.[20]

Based on my own experience and interviews with photo editors and photojournalists my specific hypotheses are as follows:

1) More front-page photos are taken outdoors after color use than before.

This effect is suspected because of the need for better lighting when shooting color film (especially color transparency film) than when shooting black-and-white film. Color film is sensitive to different colors of light, and this sensitivity means that color shifts occur if photos are taken under light sources other than those for which the film was designed. Since the most convenient light under which to shoot properly balanced color photos is the sun, I contend a lot of photojournalists take advantage of it.

2) Fewer news photos and more feature pictures appear on newspaper front pages after a newspaper switches to color.

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[19]Four staff photographers and five graphics/photo editors from newspapers in Indiana were asked in telephone interviews if they thought the use of color had affected the content of news photographs. Those that said yes, were asked to describe those effects.

[20]See appendix for a complete description of the content analysis.

One reason I suspect this move from news to features is the extra time required for color. As mentioned earlier, the technology of photographic reproduction is different for black-and-white and color photography. Color has slowed the production process. Extra time is needed to make separations when color photographs are reproduced. Color photos must be taken two to three hours prior to deadline, whereas black-and-white photos can be ready in half an hour. It appears these time constraints limit the number of breaking news photos published in color.

3) Fewer front-page photos accompany stories after color use than before.

Because of the increase in use of features that seems to come with the use of color (as discussed in hypothesis #1,) I suspect an increase in stand-alone photos following a switch to color -- because a large number of feature pictures do not accompany stories. Another factor influencing this may be less frequent use of wire photos. This leads to my next hypothesis:

4) Fewer wire photos and more staff photos are published on front pages after color use.

A shift away from wire photos on front pages after color use seems likely because the quality of wire service color is not as high as that of local color. And, although the Associated Press is shooting all photos on color film, very few papers (only those that pay extra for Laserphoto II) receive more than a small number of color wire photos.

Interview Findings

Photographers and photo editors almost all agree that the use of color has affected the content of newspaper photographs. Only one photographer, out of nine photographers and photo editors interviewed, said that the use of color has not significantly affected the content of photographs published in newspapers.

Comments about how the use of color has affected the content of photographs varied from person to person. Several people mentioned the "color for color's sake" argument. This is really two separate but related concepts: one part says that some newspapers are choosing color photos on the basis of the color in the photographs not the content of those photos, the other part says that newspaper publishers want to see color photos on the front of their papers no matter the content because they think color sells and because they have invested a lot of money in the technology needed to reproduce it well.

Most of the photo editors interviewed stated that they tried to avoid this pitfall. Two mentioned the use of black-and-white prints or contact sheets made from color negatives for editing purposes as a way of paying attention to content without considering color.[21] But even some of

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[21]This option is only available at newspapers using color negative film.

those making an effort to overcome the "color for color's sake" trap admit that every once in a while, on a slow news day, they use "gratuitous color."

In a survey conducted by the APME, 64 percent of the managers responding said that color should not be required on section fronts. A San Diego editor put it this way, "Passing up good black-and-white for mediocre color is always a mistake." Many of those surveyed emphasized that color should be available but not required.[22]

The "color for color's sake" concept was hard to pinpoint in a content analysis study. The newspaper studied, **The** (Bloomington) **Herald-Telephone**,[23] used a color photograph on the front page on all but one day during the six weeks in 1988 studied. The paper has a policy of using color everyday. Requiring color falls into the second part of the "color for color's sake" argument as discussed above. And as for the first part, one of **The Herald-Telephone** photographers said that sometimes he "shoots things for the sake of doing it in color." A March 24, 1988 front-page photograph of some kids letting go balloons at a school, tends to support the "gratuitous use of color" part of the argument.

Another common concern mentioned by many photographers and photo editors interviewed was that color, especially

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[22]"Color-Differences More Style Than Substance," **APME News**, Aug.-Sept. 1986, p. 13.

[23]The paper has since changed names. It is now **The** (Bloomington) **Herald-Times.**

transparency color[24], because it requires better lighting, can lead to more posed photos when shooting indoors. Two photo editors disagreed with this point of view stating that they preferred black-and-white photos that were well lit. But several photographers stated they create more "set up photos" when they set up lights, that people's reactions are not as spontaneous when strobes are going off and that strobes limit their movement around a room.

Concerns about lighting are stronger among photographers shooting transparency film.[25] It has less exposure latitude[26] than color negative film and if shot under the wrong kind of light cannot be color-corrected as well as color negative film. (Color negative film can be filtered when printed to correct for color balance.) The quality of transparency film is higher than color negative film, which is the main reason more than three times as many newspapers were using transparency film exclusively in 1986 than were using color negative film exclusively.[27]

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[24]Transparancies are color slides.

[25]**The Herald-Telephone** uses transparency film exclusively.

[26]Films with little exposure latitude require a photographer to be very close to the proper exposure when shooting. Some films can be exposed as much as two stops under or over the proper light meter reading and still render usable negatives. Color transparency (slide) film has an exposure latitude of one half stop, which means the photographer has to be very close to the proper light meter reading when the photograph is taken. Some photographers bracket exposures (shoot several frames of the same photo each at different f-stop settings) to make sure that one will be within the exposure latitude.

[27]**News Photographer**, July 1986. survey p. 6.

Content Analysis Findings

The need for properly balanced light shows up in the content analysis study when one looks at the number of front-page photographs that were shot outdoors during the six weeks studied in 1984 (befor the use of color) and compares that with the number shot outdoors in 1988 (after the use of color.) In 1984, 39 percent of the front page photos were taken outdoors during the day, whereas in 1988, 59 percent of the front-page photos were shot during these same ideal daylight-balanced conditions. (See Graph #1.)

This need for proper lighting is also reflected in the lack of photographs taken outdoors at night in 1988 (0 percent). In 1984, 4 percent of the front-page photos were shot outdoors at night. Both of these night photos were spot news photos. If there has been a shift away from taking photographs outdoors at night, (two photos is too small a number from which to draw a conclusion) lighting difficulty is the likely explanation.

The percentage of front-page spot news photographs in 1988 was half that of 1984. (See Graph #2.) This can be attributed in part to the need for good lighting as discussed above. But the main reason may be time constraints. One Herald-Telephone photographer said that The Herald-Telephone had used fewer spot news photos since the switch to color because of the additional time needed to prepare color photos for reproduction.

This need for extra lead time along with the need for good lighting apparently shifts the content of photos from the news categories to the feature category[28]. In 1988, 45 percent of the front-page photos were feature photographs, whereas 22 percent were either spot news or general news. In 1984, 23 percent of the front-page photos were features, and 30 percent spot or general news. (See Graph #2.)[29]

This means a feature photograph, such as a child flying a kite or a man cross-country skiing, was twice as likely to appear in 1988 than a news photo, such as a photo from a midnight car accident or press conference. This is a different scenario than in 1984, when a news photo was more likely to appear than a feature photo.

One **Herald-Telephone** photographer said that the extra need for color features since the paper began using color makes his job more difficult. He expressed a desire for more art tied to stories. The content analysis figures show that in 1988, 53 percent of the front-page photos were tied to a story, whereas in 1984 the figure had been 68 percent. (See Graph #3.) This photographer suggested the newspaper use more wire service color, instead of emphasizing staff-produced color features.

In 1988 the only color wire service photos used on the front page were head shots. Wire service photos published

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[28]All categories are defined in the appendix in the explanation of the content analysis.

[29]Percentage of spot news and general news photos were added together to give total news percentages.

in 1984 included two general news, one spot news and a head shot combo. The percentage of wire photos published on the front page in 1988 was slightly lower than 1984. (See Graph #4.)

However, if there has been a move away from wire service photos on the front page since the emphasis on color, it may be because the quality of wire service color is not as high as that of local color. Also the time delay factor is increased by 16 minutes of transmission time. And, although the AP is shooting all photos on color negative film, only a small percentage are separated and transmitted as separations (ready for color reproduction,) on the regular Laserphoto network. (Newspapers may pay extra for Laserphoto II - a service that transmits only color photographs.)

The content analysis also shows the disappearance of the two or three picture feature package,[30] which is something I did not suspect. In 1984, 23 percent of the front page features were two or three photo picture packages. In 1988, there were no multiple image features published on the front-page of **The Herald-Telephone** during the six weeks studied. This is likely a result of the separation process. Color transparencies must be scanned one at a time. The extra time needed to scan an additional

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[30]A feature package consists of two or three related images of one human interest event. An example would be: three photos of a kid with a kite - one showing him flying the kite, one showing the kite in a tree and one showing someone retrieving the kite.

photo or two may discourage the use of picture packages, especially when deadlines are close. (Color negative film has an advantage in this area- multiple prints can be scanned together - provided the color balance is similar in all photos.)

Color's Forte - Illustrations

Spot news and general news photographs (see Table # 3) may have lost space on the front page because of the increased use of color photographs in newspapers today. But photographers and editors agree that illustrations, photographs set-up to illustrate a subject or idea[31], have become more popular since color has become the chosen medium. One photo editor said that his newspaper got into color because of the "food of the week" feature. He said that good color makes food more appetizing. The general public seems to agree. In a 1987 telephone survey, food/cooking pages were among the top three types of pages people said they want to see in color. At the top of the list was fashion, followed closely by comics, food/cooking and home and garden.[32]

Inside feature pages are perfect for color illustrations. Newspaper editors can plan a fashion page,

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[31]Illustrations are often shot in a studio under ideal lighting conditions.

[32]Anderson, T. "Readers Think Color Is Important," Editor and Publisher, Sept. 27, 1987, p.4c.

arrange for models, scout locations, set up lights and shoot the photographs well in advance of the date of publication. Time constraints and lighting concerns that may affect the use of breaking news photographs are no longer a concern. Many times, newspaper editors even have time to allow for a reshoot if something goes wrong the first time around.

The increased use of illustrations does not show up in a content analysis of front-page photographs. (Although one front page photo in 1988 - shot in the studio - came close to falling into this category.) Illustrations almost always run on the section fronts of inside pages, such as fashion, food, or travel. The increase in their use in daily newspapers caused the National Press Photographers Association to add a category in the clip contest specifically for illustrations. This new category is consistently won by color photographs, which leads one to believe its addition was prompted by the increased use of color photographs in modern newspapers.

Conclusion

This paper has explored the effects of the use of color on the content of newspaper photos and attempted to explain the differences between black-and-white and color that may cause them. Hue, lighting and time constraints are three obvious differences between black-and-white and color that seem to be influencing the content of newspaper photographs. Other, less obvious, factors may also be at work.

Few photographers or picture editors deny that the use of color has affected the content of newspaper photos.

A content analysis of front-page photographs published in **The Herald-Telephone** supported three of the four hypotheses set forth earlier in this paper:

1) More front-page photos are taken outdoors after color use than before. In 1984, 39 percent of the front-page photos in **The Herald-Telephone** were taken outdoors (during the day.) In 1988 that figure had increased to 59 percent.

2) Fewer news photos and more feature photos appear on newspaper front pages after a newspaper switches to color. In 1984, 30 percent of the front-page photos in **The Herald-Telephone** were spot or general news photos and 23 percent features. By 1988 these figures had changed to 22 percent spot or general news and 45 percent features.

3) Fewer front-page photographs accompany stories after color use than before. In 1984 68 percent of the front-page photos in **The Herald-Telephone** were tied to stories. In 1988 that figure had decreased to 53 percent.

The fourth hypothesis -- 4) Fewer wire photos and more staff photos are published on front pages after color use -- was not supported. In 1984 seven percent of the front-page photos in **The Herald-Telephone** were wire photos. In 1988 that figure decreased slightly to four percent. This difference seems too small to be considered significant. This hypothesis needs to be tested on a larger paper that is more likely to use wire photos regularly on the front page.

Results of the content analysis study discussed in this paper may be misleading -- first, because of the small sample (42 days,) but more importantly because of a combination of organizational constraints which may be unique to **The Herald-Telephone:** the exclusive use of transparency film; the policy of using color photos everyday; and the time constraints of an afternoon paper.

Further research in this area focusing on differences between newspapers that shoot color negative and transparency film, between newspapers that have a policy of using color everyday and those that have a color option[33], and between morning and afternoon papers would be useful in determining the effects of color under different organizational constraints.

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[33]Newspapers that have a color option and actually exercise that option.

CONTENT ANALYSIS

Four aspects of photographs published on the front page of **The Herald-Telephone** between February 18 and March 31 of 1984[1] and 1988 were analyzed for the content analysis segment of this study. The four divisions were chosen on the basis of hypotheses developed from interviews with photographers and photo editors and from personal experience as a newspaper photographer.

The divisions were: (1) whether a photo was taken indoors, outdoors at night or outdoors during the day, (2) whether a photo accompanied a front page story, a story on another page or was a stand-alone photograph, (3) whether a photo was staff or wire, and (4) what picture category the photo fit into.

Picture categories included:

Spot News - photographs of unscheduled events for which no advance planning is possible.

General News - photographs of news events for which advance planning is possible.

Feature - photographs that are not bound by time (as news photos.) Features are usually stand-alone photographs that record an everyday happening or slice of life. Also included in this category are photos that accompany feature stories.

Portrait/Personality - photographs of people that are more than mere head shots.

Sports Action - photographs that show a sports event in progress.

Sports Feature - feature photographs taken at a sports event.

Head Shot Combo - a combination of two or more head shots into a strong visual element.

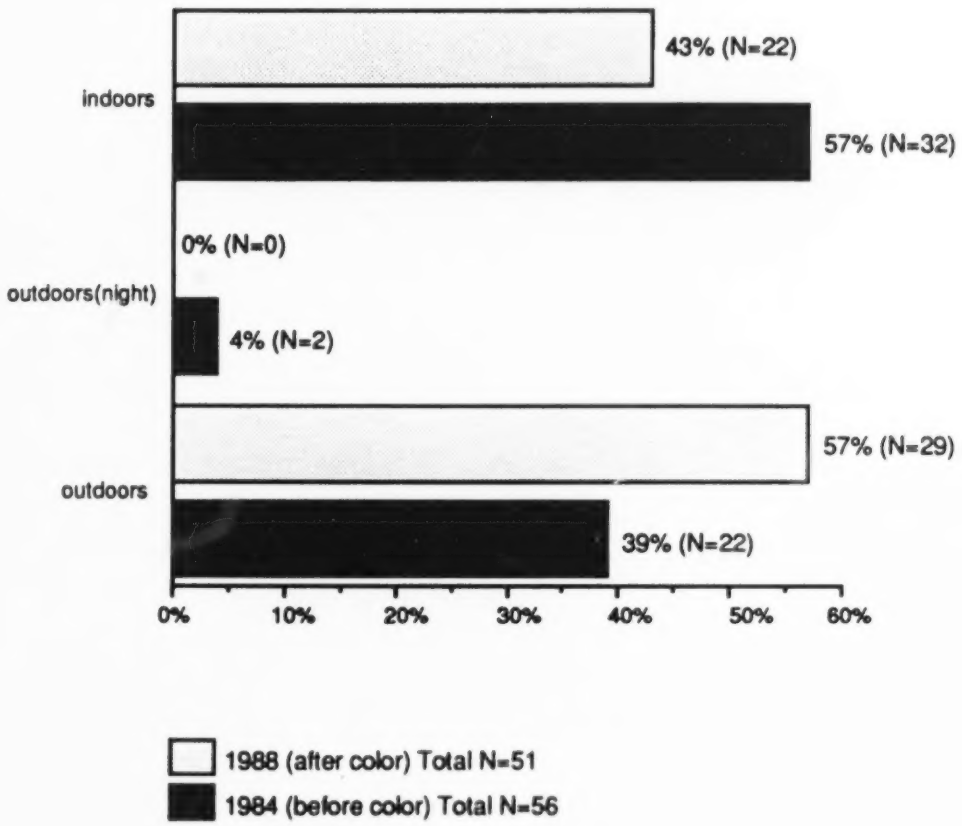
Only photographs that were larger than one column were included in the analysis (single head shots were not counted.)

[1]Photographs published in the final edition were used in this analysis.

The Herald-Telephone

Graph # 1: Where Photos Were Taken

An analysis of front-page photographs published in *The* (Bloomington) *Herald-Telephone* before[1] and after the use of color.[2]

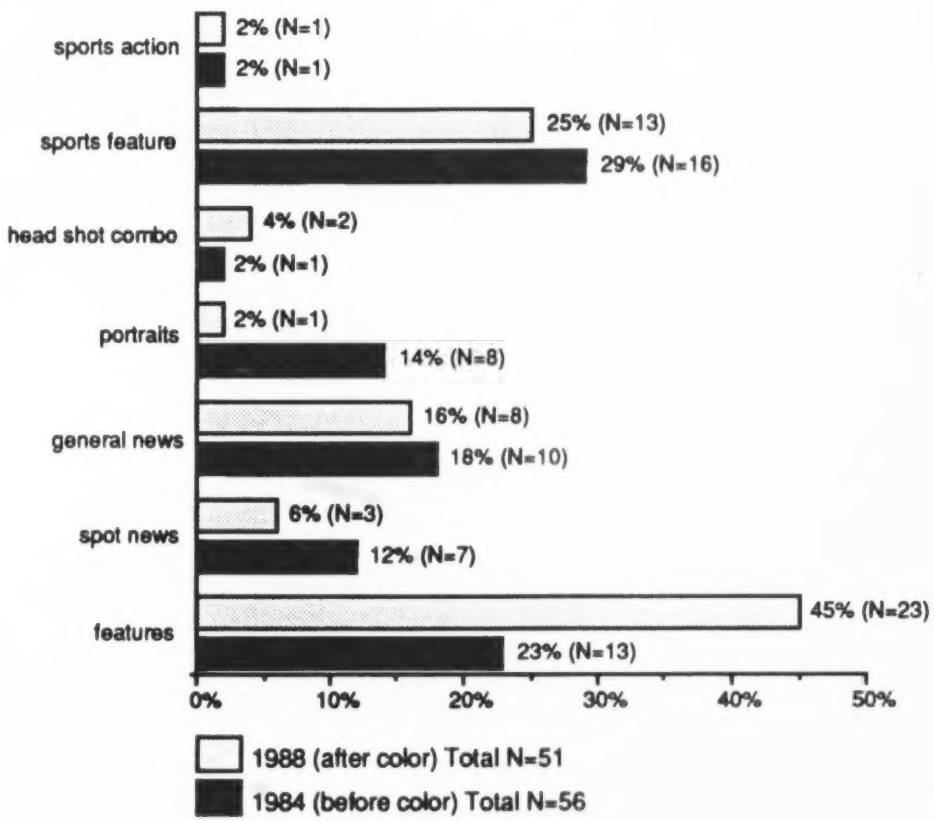


1 Feb.18 - Mar. 31, 1984
2 Feb.18 - Mar. 31, 1988

The Herald-Telephone

Graph # 2: Content of Photos

An analysis of front-page photographs published in *The* (Bloomington) *Herald-Telephone* before[1] and after the use of color.[2]

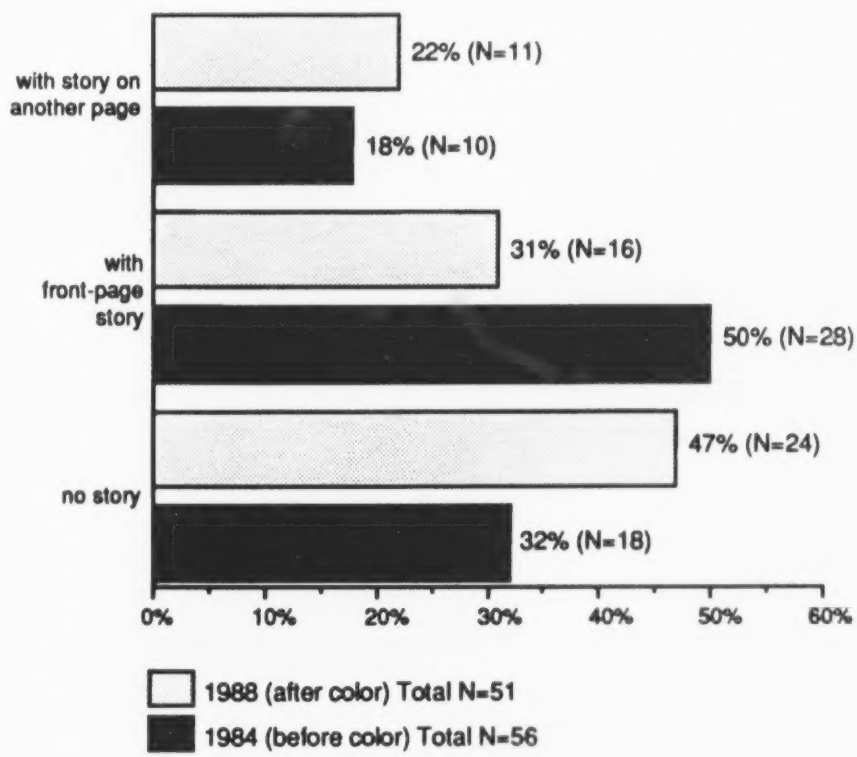


1 Feb.18 - Mar.31, 1984
2 Feb.18 - Mar.31, 1988

The Herald-Telephone

Graph # 3: Did Photos Accompany Stories or Did they Stand alone?

An analysis of front-page photographs published in *The* (Bloomington) *Herald-Telephone* before[1] and after the use of color.[2]

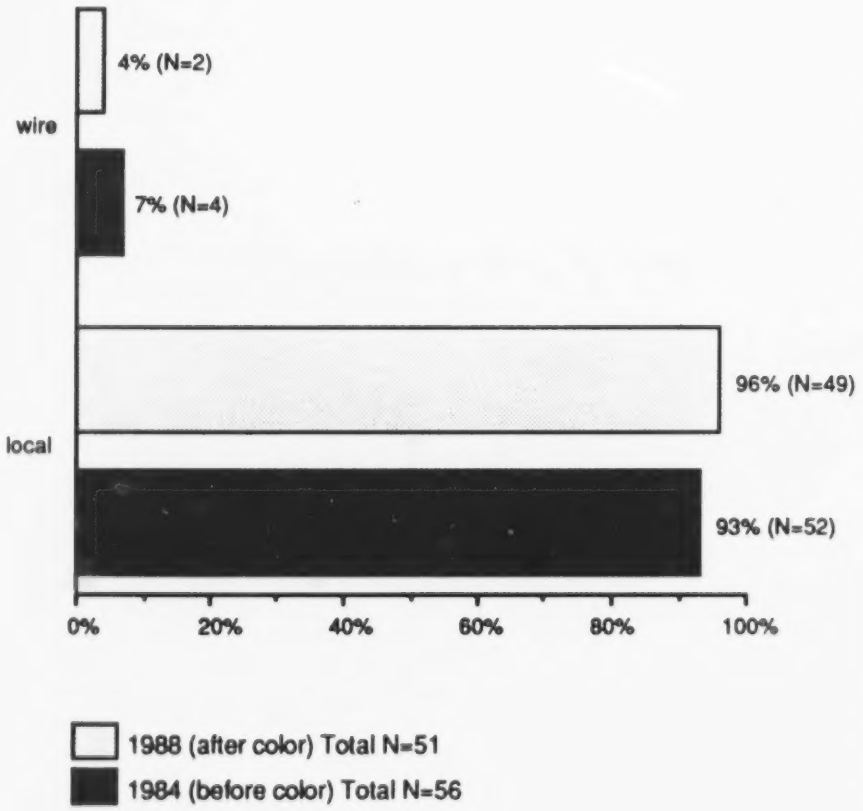


1 Feb.18 - Mar.31, 1984
2 Feb.18 - Mar.31, 1988

The Herald-Telephone

Graph # 4: Were the Photos Wire or Staff Produced?

An analysis of front-page photographs published in *The* (Bloomington) *Herald-Telephone* before[1] and after the use of color.[2]



1 Feb.18 - Mar.31, 1984
2 Feb.18 - Mar.31, 1988

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